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5th January, 1959.

COCOM Document 3715.01/3B

COORDINATING COMMITTEE

RECORD OF DISCUSSION

ON

ITEM 1501 - COMMUNICATIONS, NAVIGATION, DIRECTION FINDING

AND RADAR EQUIPMENT

15th and 18th December, 1959

Present: Belgium(Luxembourg), France, Germany, Italy, Japan, Netherlands, United Kingdom, United States.

References: COCOM Documents Nos. 3700.1, 2 and 5, 3715.01/1 and 2, and W.P. 1501/1 - 4.

1. The CHAIRMAN invited the Committee to resume discussion on Item 1501 and recalled that agreement had not yet been reached on the wording of the Notes to sub-items (a), (b)(2) and (e), on the definition of sub-items (a)(3) and (a)(4), or on parts (iii) and (iv) which the United Kingdom Delegation wished to add to sub-items (b)(2) and (e).
2. The UNITED STATES Delegate stated that his Government were not able to agree to the Notes proposed by the German Delegate set out in COCOM Doc. 3715.01/2. He explained that these Notes would free the equipment concerned too liberally. The strategic risks thus incurred would be such that the United States Government preferred to retain the present Notes, which only allowed the export of a very limited number of sets, since it was highly unlikely that the Communist countries would re-affect the aircraft servicing their commercial airlines merely to obtain the equipment in question. In any event, if this were the case, the Delegate was confident that the participating countries would be ready to modify their procedure immediately.
3. The CHAIRMAN then invited the Committee to resume study of sub-items (a)(3) and (a)(4).
4. The FRENCH Delegate stated that his Delegation maintained in substance the conclusions they had drawn during the second round of discussion, at which time they had invited the Committee to exercise great caution as regards sub-items (a)(3) and (a)(4) of Item 1501, especially with respect to the export of airborne equipment incorporating frequency standards and a large number of selectable channels. The French Delegation recognised, however, that the equipment in question might form part of the standard equipment of commercial civilian aircraft. They were therefore willing, in a spirit of compromise, to adopt a more flexible attitude than that shown during the second round of discussion. In view of the possibility of limiting exports to the quantities normally needed to equip the Bloc's commercial aircraft in their dealings with Free World countries, and in view of the fact that quantities thus exported, even if they were diverted by the Bloc to military ends, would make no material increase in its military potential since the prior or ex post facto control would prevent them from having a cumulative effect, the French Delegation would not object to the controlled release of airborne V.H.F. equipment having a large number of selectable channels.
5. The French Delegation, however, believed it essential to set up some form of control for such exports. The question as to whether such control should be embodied in an administrative exceptions note or a prior consultation procedure remained to be settled, but they felt it all important that this control procedure should be at least as strict as that to be adopted in the case

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of Items 1520, 1523 and 1526. The types of equipment covered by these items were very similar, and were in any event all kinds normally used for civilian purposes but which could be diverted to military uses. There were however, aggravating circumstances in the case of Item 1501, since its military use was much more immediate and direct than that of the equipment covered by Items 1520, 1523 and 1526. There was no need to be a military technician or expert to appreciate the fact that airborne V.H.F. equipment having a large number of selectable channels and incorporating recent techniques (two years), were much more likely to have military applications than the equipment covered by the three other items mentioned. The conclusion was thus the following: that the four Items 1501, 1520, 1523 and 1526 were closely linked, that the same procedure should apply in each case and that the French Delegation were ready to accept the German Delegation's redefinition, provided that the export of the equipment freed were safeguarded by a procedure at least as strict as that adopted for the equipment covered by Items 1520, 1523 and 1526.

6. The NETHERLANDS Delegate recalled that his Delegation had, from the outset of the discussions, expressed views similar to those held by the French Delegation, and stated that he fully subscribed to the statement just made by his French colleague.

7. The CHAIRMAN noted that the Committee was to resume study of this matter on the 25th January. He invited delegates to give their views on parts (iii) and (iv) which the United Kingdom Delegation wished to add to sub-items (b)(2) and (e).

8. The UNITED STATES Delegate recalled that his Delegation had agreed ad referendum to part (ii), ^{to United Kingdom proposal} to exclude V.O.R. equipment. He was able to confirm that agreement and to accept part (iv) which excluded I.L.S. sets, except however in the case of transistorised types which were only manufactured in the United States for military purposes. Equipment thus excluded should nevertheless be subject to the two-year time limit prescribed in the German Notes, and also to the condition of being installed in Sino-Soviet civilian aircraft. The United States Delegation were still unable to agree to part (iii) under which the United Kingdom Delegation proposed to exclude D.M.E. equipment.

9. The CHAIRMAN noted that, on the conditions mentioned above by the United States Delegate, the Committee had unanimously agreed to parts (i), (ii) and (iv) as proposed by the United Kingdom Delegation.

10. At the request of the United Kingdom Delegation, the COMMITTEE, noting that agreement was not possible on all the changes proposed for Item 1501, agreed to draw up a draft definition incorporating the changes unanimously agreed at the close of the 3rd round of discussion. This text, as set out in the Annex to this document, would enter into force at a date to be agreed later for the entry into force of all the new definitions drawn up during the 1959 List Review.

11. On the 18th December, the UNITED STATES Delegate stated that the conditional release of V.O.R. and non-transistorised I.L.S. equipment to which his Government had agreed (see paragraph 8 above) should come within the framework of an administrative exceptions procedure.

12. The COMMITTEE took note of this statement and agreed to resume discussion on the 25th January, 1960.

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COCOM Document 3715.01/3BITEM 1501

(Incorporating agreements reached at Third Round discussions)

"Communication, navigation, direction finding and radar equipment, n.e.s., as follows:

- (a) Airborne communication equipment and specialised parts and components therefor.

NOTE: A. Governments may permit as an administrative exception the shipment of commercial airborne equipment needed to equip Sino-Soviet Bloc aircraft which participate in scheduled commercial flights to Free World destinations, and containing none of the following characteristics:

- (1) Designed to operate at frequencies greater than 156 Mc/s;
 - (2) Designed for Single Side Band Operation;
 - (3) Incorporating facilities for the rapid selection of more than 50 channels per equipment;
 - (4) Incorporating facilities for providing a multiplicity of alternative output carrier frequencies controlled by a lesser number of piezo-electric crystals and not forming multiples of a common control frequency;
 - (5) Pressurised throughout;
 - (6) Rated for continuous operation over a range of ambient temperatures extending from below -40°C. to above +55°C.;
- These shipments should be reported in monthly statistics.

- B. Governments are also authorised to issue licences for exports of:

Commercial airborne equipment, (embargoed only by parts (3) and (4) above and which has been in normal civil use for at least two years, needed to equip Sino-Soviet Bloc aircraft which participate in scheduled commercial flights to Free World destinations); incorporating facilities for the rapid selection of 360 or fewer channels in the 118 to 136 Mc/s frequency band, whether or not incorporating facilities for providing a multiplicity of alternative output carrier frequencies controlled by a lesser number of piezo-electric crystals and not forming multiples of a common control frequency, if, after having notified the case to the Committee with full details and justification, no objection or request for consultation is made within 8 working days of the issuance of the submitted document by the Secretariat. If within the indicated time limit an objection or request for consultation is

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made, the case should be brought to full discussion in the Committee. The cumulative effect of shipments will be an important factor in reviewing proposed exports. If at any stage in the effecting of the export or later servicing thereof, there develops an indication that the equipment has been installed in other aircraft⁹⁸ put to another use than that on which the justification was made, all shipments, installation or servicing arrangements should stop immediately. These shipments should be reported in the monthly statistics.

(b) Airborne navigation equipment and direction finding equipment, as follows:

- (1) Designed to make use of "Doppler" frequency phenomena;
- (2) Utilising the constant velocity and/or the rectilinear propagation characteristics of electromagnetic waves having frequency less than 4×10^{14} cycles per second (0.75 microns);

NOTE: A. Governments may permit as an administrative exception the shipment of commercial airborne equipment needed to equip Sino-Soviet Bloc aircraft which participate in scheduled commercial flights to Free World destinations, and not designed to make use of hyperbolic grids based on the constant velocity and/or the rectilinear propagation characteristics of electromagnetic waves of frequencies greater than 3.0 megacycles per second. These shipments should be reported in monthly statistics.

B. Notwithstanding Note A. Governments may permit as administrative exceptions on and after 1st February 1960 the export of the following equipments

- (a) V.O.R.
- (b) I.L.S. (not transistorised)

if the equipment is equivalent in all characteristics and performance to equipment used for at least two years as standard equipment of aircraft not covered by Item 1460

- (3) Pulse modulated altimeters
- (4) Direction finding equipment operating at frequencies greater than 5 Mc/s
- (5) Pressurised throughout
- (6) Rated for continuous operation over a range of ambient temperatures extending from below -40°C. to above +55°C.

(c) Airborne radar equipment

(d) Ground and marine radar and direction finding equipment, as follows:

- (1) Radar equipment, n.e.s., other than those normal equipments designed for pulse operation at frequencies between 1,300 Mc/s and 1,660 Mc/s, 2,700 Mc/s and 3,900 Mc/s, or 8,500 Mc/s and 10,000 Mc/s, having in the case of marine radar, a peak output power to the aerial system of not greater than 75 KW or in the case of ground-based radar, having a peak output power to the aerial system not greater than 50 KW and a range of not greater than 50 nautical miles.

NOTE: The 50 nautical miles range is intended to refer to the maximum useable range on a target of 100 sq.n.

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- (2) Radar equipment incorporating permanent Echo Cancellation
 - (3) Radar equipment incorporating antennae system for other than linear polarisation
 - (4) Radar equipment utilising other than conventional pulse modulation and signal processing techniques
 - (5) Ground direction finding equipment operating at frequencies greater than 5 Mc/s.
 - (e) Ground and marine equipment for use with airborne navigation equipment utilising the constant velocity and/or the rectilinear propagation characteristics of electromagnetic waves having frequency less than 4×10^{14} cycles per second (0.75 microns).
- NOTE: A. Governments may permit as administrative exceptions the shipment of ground equipment for use with airborne navigation equipment **required** for use at Sino-Soviet Bloc airports for servicing commercial flights from the Free World and not designed to make use of hyperbolic grids based on the constant velocity and/or the rectilinear propagation characteristics of electromagnetic waves of frequencies greater than 3 megacycles per second. These shipments should be reported in the monthly statistics.
- B. Notwithstanding Note A. Governments may permit as administrative exceptions on and after 1st February 1960 the export of the following equipments
- (a) V.C.R.
 - (b) I.L.S. (not transistorised)
- if the equipment is equivalent in all characteristics and performance to equipment used for at least two years in connection with equipment mentioned in Note B. to paragraph (b)(2) above.
- (f) Specialised parts, specialised accessories, specialised testing or calibrating equipment and training or simulating equipment, n.e.s., for the apparatus listed in (b) to (e) above.

(See also Item 4501.)

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